

### **REMARKS**

This responds to the Office Action mailed on June 8, 2006. Claim 1 is amended to further clarify the recited subject matter. Dependent claims 11, 14, 16, 23, 24 and 27, which were indicated to be allowable, are amended into independent form. No claims are canceled and no claims are added. Thus, claims 1-49 remain pending in this application.

#### **Allowable Subject Matter**

Claims 48 and 49 have been allowed.

Claims 11-20, 23-30, 39-41, 45 and 46 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Dependent claims 11, 14, 16, 23, 24 and 27 are amended into independent form. Claims 12-13 depend directly or indirectly on claim 11, and are asserted to be in condition for allowance with claim 11. Claim 15 depends on claim 14, and is asserted to be in condition for allowance with claim 14. Claims 17-20 depend directly or indirectly on claim 16, and are asserted to be in condition for allowance with claim 16.

#### **§103 Rejections of the Claims**

The office action applies three §103 rejections, and for reasons provided below Applicant respectfully asserts that that these §103 rejections fail to provide a proper *prima facie* case as they rely on a number of improper assumptions. This response traverses the assumptions contained in the section of the office action entitled Response to Arguments (paragraph 6 of the office action), and then address the §103 rejections.

#### **Traversal of Assumptions**

Applicant respectfully asserts that the office action makes a number of improper assumptions that are not supported by objective evidence. Applicant concludes that the Examiner is taking official notice with respect to these assumptions, and further asserts that the assumptions are improper. In taking official notice, as identified in MPEP §2144.03, the rejection should provide an explicit basis with a technical line of reasoning sufficient to

instantaneously and unquestionably demonstrate that the asserted elements are in fact well known. Applicant asserts that the official notice / assumptions are not based on a clear and unmistakable line of reasoning and are not cable of instant and unquestionable demonstration. Applicant respectfully traverses any such official notice, and requests the Examiner to either provide a reference that describes such elements or provide an affidavit pursuant to 37 CFR §1.104(d)(2).

The office action assumes: *Each mode represents a specific parameter change required to meet the desired listening situation and can be nothing more than a change in volume or gain or compression ratio.* Applicant respectfully traverses.

Applicant cannot find any showing or suggestion that each mode represents a specific parameter change rather than a selection of a set of parameters, and that a change of modes can be nothing more than a change in volume or gain or compression ratio. Although not expressly stated in the rejection, Applicant submits that the rejection takes official notice that changing modes involves nothing more than changing volume, or gain, or compression ratio. Applicant refers to Ishige et al. itself in support of Applicant's position that the rejection has not provided a clear and unmistakable technical line of reasoning sufficient to instantaneously and unquestionably demonstrate that the mode is nothing more than a volume or gain or compression ratio. Ishige et al. self-describes itself as relating to a hearing aid for controlling hearing sense compensation with suitable parameters internally tailored (col. 1 lines 8-9). Parameters for time variant filters are referred to in Ishige et al. as "hearing aid parameters." (col. 1 lines 31-33). Ishige et al. indicates that it is difficult for a user to carry out a fine control on the digitally programmable hearing aid because the parameters are so many and hardly imagined (col. 1 lines 41-45), and identifies that loudness is merely one of the hearing characteristics (col. 1 line 63). The data signal DT1 represents suitable hearing characteristics or suitable hearing aid parameters (col. 3 lines 5-13). The interpolator determines the suitable hearing aid characteristics or the suitable hearing aid parameters through an interpolation between the sets of hearing aid characteristics or the sets of hearing aid parameters and produces the data signal DT1 representative of the suitable hearing aid characteristics or the suitable hearing aid parameters (col. 3 line 60 to col. 4 line 2). If the user does not change the working conditions, a set of

hearing aid characteristics or a set of hearing aid parameters at the latest fitting is supplied to the controller 4c without interpolation (col. 4 lines 51-54).

Applicant asserts that the Ishige et al. reference consistently refers to “suitable hearing aid parameters” and further asserts that the modes (e.g. home, street, night) and interpolation involve a plurality of parameters.

Applicant also notes that the assumption that each mode represents a specific parameter change and can be nothing more than a change in volume or gain or compression ratio is inconsistent with another statement made in the office action that the data set is representative of the suitable hearing aid characteristics or suitable hearing aid parameters.

The office action further assumes: *Ishige teaches the data set is representative of the suitable hearing aid characteristics or suitable hearing aid parameters but does not require a multiple number of parameters to be simultaneously changed.* Applicant respectfully traverses.

Although not expressly stated in the rejection, Applicant submits that the rejection is taking official notice that changing modes involves selecting one parameter to be changed (e.g. can be nothing more than a change in volume or gain or compression ratio). Applicant refers to Ishige et al. itself (see above) in support of Applicant’s position that the rejection has not provided a clear and unmistakable technical line of reasoning sufficient to instantaneously and unquestionably demonstrate that changing a mode only involves selecting one parameter to be changed. For example, Ishige et al. indicates that it is difficult for a user to carry out a fine control on the digitally programmable hearing aid because the parameters are so many and hardly imagined (col. 1 lines 41-45), and identifies that loudness is merely one of the hearing characteristics (col. 1 line 63). If the parameters are so many and hardly imagined so as to make it difficult for a user, Applicant submits that the assumption that changing modes involves selecting one parameter to be changed is not capable of instantaneous and unquestionable demonstration. Furthermore, not only does Ishige et al. not show that changing a mode involves only changing or modifying one parameter, Applicant asserts that changing a mode does not select a parameter to be changed by the interpolator.

The office action further assumes: *Ishige clearly teaches a switch separate from the mode select switch . . . to adjust the parameter selected by the operation of the mode select switch. While the switch uses an interpolator to determine the value of the selected parameter, it*

*clearly “adjusts” or changes the value of the selected parameter.* Applicant respectfully traverses. This assumption relies on the other assumptions, which have been traversed above. Further, this assumption improperly assumes that the mode switch selects a parameter to be changed, and that the interpolator changes the parameter selected by the mode switch.

Applicant cannot find a showing or suggestion that the user-changed working conditions modify parameters specific to a parameter set for the selected operation mode. The interpolation is between sets of data, but the reference does not show or suggest that the sets of data used for the interpolation include a set of data associated with the operation mode. Applicant cannot find in Ishige et al. what parameters are associated with a parameter set for the mode and what parameters are associated with the interpolated parameter sets. The following hypothetical situations are provided as examples to show that the assumptions made in the office action do not provide a clear and unmistakable line of reasoning that the assumed facts based on the Ishige et al. reference are capable of instantaneous and unquestionable demonstration.

In a first hypothetical situation, for example, first, second and third modes include the same parameters (e.g. parameters A, B, and C), but different values for those parameters (e.g. the first mode has parameter values A1, B1, and C1, the second mode has parameter values A2, B2 and C3, and the third mode has parameter values A3, B3, and C3). In second hypothetical situation, for example, the first, second and third modes include different parameters (e.g. the first mode includes parameters A, B and C, the second mode includes parameters A, D and E, and the third mode includes parameters F, G and H). In the second hypothetical situation, parameter A can have the same value in the first and second modes.

If the interpolation includes an interpolation of a set of data that includes parameter A in either the first or second hypothetical situations, the same parameter is adjusted in either mode so that changing from the first mode to the second mode cannot be considered to be a selection of a parameter to be adjusted. In the first situation, the parameter A has different values for the first and second modes, but the parameter is the same. In the second situation, the parameter A is the same and has the same value for the first and second modes. Furthermore, there is no showing or suggestion that the interpolated data set includes a parameter associated with a data set for a mode. The interpolation could include an interpolation of parameters X, Y and/or Z which are not associated with any of the first, second or third modes, but are still used to digitally process

the signal. Either way, changing modes from the first mode to the second mode does not involve selecting a parameter to be modified by the interpolator. Additionally, if the interpolation includes an interpolation of a set of data that includes parameter A in the first or second hypothetical situations, it is unclear how the selection of mode 1 selects parameter A (rather than the other parameters associated with the mode) to be modified.

For at least the reasons provided herein, Applicant asserts that the rejection does not provide a prima facie case for a rejection under §103, and further asserts that a selected mode in Ishige et al. does not select a parameter to be modified by the interpolator, and that the interpolator does not modify a parameter selected by selecting a mode.

Paragraph 6 of the office action did not respond to Applicant's argument regarding full-on parameters. The rejection relies on the characterization the full-on parameters are the initial parameters from the latest fitting. However, Applicant's specification clearly distinguishes full-on parameters from best fit parameters (page 9 line 28 to page 10 line 10).

#### First §103 Rejection

Claims 1-9, 21, 22, 31, 32-36, 38, 42 and 47 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishige et al. (US 5,852,668) in view of Hartl et al. (US 4,739,512). Applicant respectfully traverses for at least the following reasons.

Applicant respectfully submits that the combination of references does not show all of the claimed subject matter of claim 1. For example, Applicant is unable to find, among other things, in the cited portions of the Ishige et al. and Hartl et al. references, a parameter-select device accessible externally from the housing to select a parameter of the plurality of signal processing parameters to be adjusted, and a parameter-adjust device accessible externally from the housing to adjust the parameter selected by the parameter-select device, as recited in independent claim 1. The rejection relies on a mode selection switch to select one of a plurality of modes for compensating the hearing sense of the user as a parameter select device, and on another switch for changing the working conditions of the user's hearing sense as the parameter-adjust device. Applicant respectfully disagrees.

Applicant submits that the selection of a mode in Ishige et al. appears to be a selection of a data set (a set of parameter values stored in different memory sub-units for use to compensate

hearing sense in different environments -- col. 3 lines 30-55). Applicant respectfully asserts that a parameter-select device to select a parameter to be adjusted is different from a mode selection switch to select a mode associated with a set of parameter values for use to compensate hearing sense in a particular environment. Applicant further submits that the switch to change the working conditions of the user's hearing sense appears to interpolate between parameter sets (col. 3 lines 62-67). Applicant respectfully asserts that a parameter-adjust device to adjust the parameter selected by the parameter-select device is different from a switch to interpolate between sets of parameters. Applicant asserts that the rejection relies on a number of assumptions that are improper in a §103 rejection, as the assumptions are not capable of instant and unquestionable demonstration.

Claim 1 has been amended to further clarify the recited subject matter. Applicant is unable to find a parameter-select device accessible to be manipulated externally from the housing to manually select a parameter of the plurality of signal processing parameters to be adjusted, and a parameter-adjust device accessible to be manipulated externally from the housing to manually adjust the parameter selected by the parameter-select device, as recited in amended claim 1.

Applicant respectfully submits that the combination of references does not show all of the claimed subject matter of claim 21. For example, Applicant is unable to find, among other things, in the cited portions of the Ishige et al and Hartl et al. references, a method that includes selecting one of the parameters with a parameter-select device on an external surface of the housing, and adjusting the selected parameter with a parameter-adjust device on an external surface of the housing, as recited in independent claim 21. Applicant respectfully asserts that selecting one of the parameters with a parameter-select device is different from selecting a mode associated with a set of parameter values for use to compensate hearing sense in a particular environment, and further asserts that adjusting the selected parameter with a parameter-adjust device is different from interpolating between sets of parameters.

With respect to amended independent claim 32, Applicant is unable to find, among other things, in the cited portions of the Ishige et al and Hartl et al. references, a first memory device in the housing to store first parameters where the first parameters include full-on parameters, as recited in the claim. The rejection is incorrect in characterizing the parameters from the latest

fitting to be full-on parameters. The present application clearly distinguishes between best fit parameters and full on parameters (specification at page 9 line 29 to page 10 line 10).

With respect to amended independent claim 42, Applicant is unable to find, among other things, in the cited portions of the Ishige et al and Hartl et al. references, a method that includes selecting one of a first memory device in the housing in which first parameters are stored and a second memory device in the housing in which second parameters are stored with a memory select device on an external surface of the housing where the first parameters include full-on parameters, as recited in the claim.

Claims 2-9 depend on independent claim 1 and are believed to be in condition for allowance at least for the reasons provided with respect to claim 1. Claims 22 and 31 depend on independent claim 21 and are believed to be in condition for allowance at least for the reasons provided with respect to claim 21. Claims 33-36 and 38 depend on independent claim 32 and are believed to be in condition for allowance at least for the reasons provided with respect to claim 32. Claim 47 depends on claim 42, and is believed to be in condition for allowance at least for the reasons provided with respect to claim 42.

Applicant respectfully requests withdrawal of the rejection, and reconsideration and allowance of the claims.

#### Second §103 Rejection

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Ishige in view of Hartl as applied to claims 1 and 21 above, and further in view of Martin (US 6,130,950). Applicant respectfully traverses for at least the following reasons.

Applicant respectfully submits that the addition of Martin does not cure the deficiencies of the rejection of claims 32 and 42 using the combination of Ishige et al. and Hartl et al., as provided above. Claim 10 depends indirectly on claim 1 and is believed to be in condition for allowance at least for the reasons provided with respect to claim 1.

#### Third §103 Rejection

Claims 37, 43 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Ishige in view of Hartl as applied to claims 32 and 42 above, and further in

view of Armstrong et al. (US 6,937,738). Applicant respectfully traverses for at least the following reasons.

Applicant respectfully traverses. Applicant respectfully submits that the addition of Armstrong et al. does not cure the deficiencies of the rejection of claims 32 and 42 using the combination of Ishige et al. and Hartl et al., as provided above. Claim 37 depends on claim 32 and is believed to be in condition for allowance at least for the reasons provided with respect to claim 32. Claims 43-44 depend on claim 42 and are believed to be in condition for allowance at least for the reasons provided with respect to claim 42.



**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6960 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.


Respectfully submitted,

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9 day of October 2006.

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